

Work Order ID 71988

Friday, July 15, 2011 8:36:18 AM



Page 1

Item ID: D412-630-032

Accept



Setup Start



Revision ID:

Item Name: Pilot/Co-Pilot Step, RH (Folding)

Stop



Start Date: 7/15/2011 Start Qty: 2.00



Cust Item ID:

Required Date: 7/29/2011 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

[Signature]

Date: 11-07-15

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

IIN D412-630

Rev M

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy D412-630 bluefile & type labels per PPP412-630-032 CHG003

Sulog/13

HJ for BG 11-9-12

110

0.00



Small Fab

Small Fab

Memo

0.00

Small Fab

Assemble as per dwg D412-630 p.17

****ensure tension to retract step is 11 to 18 lbs before installing lockwire.****

A/R MS20995C41 batch: *7114830*

GS 11/09/07 (2)

120

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

****ensure tension to retract step is 11 to 18 lbs ****

Test fit on aircraft in Eng. lab.

Sulog/13

x2 RH

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, July 15, 2011 8:36:25 AM

Page 1

Work Order ID 71988

Friday, July 15, 2011 8:36:19 AM

Page 2

Item ID: D412-630-032

Accept

Setup Start

Revision ID:

Stop

Item Name: Pilot/Co-Pilot Step, RH (Folding)

Start Date: 7/15/2011 Start Qty: 2.00

Cust Item ID:

Required Date: 7/29/2011 Req'd Qty: 2.00

Customer:

Reference:

Run Start

Approvals: Process Plan: Date: Tooling: Date:

Stop

QC: Date: SPC (Y/N): Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

140

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

150

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D412-630-032

Location: 2

PPP Rev: D

11/9/12 20

12
RH

11/16/13 20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

H:\FORMS\Quality Assurance\approved QA\NCRWO RevE

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NOTE: Date & initial all entries

H:\FORMS\Quality Assurance\approved QA\NCRWO RevE

H:\FORMS\Quality Assurance\approved QA\NCRWO RevE

Picklist Print

Page 2

Friday, July 15, 2011 8:36:25 AM

Work Order ID: 71988

Parent Item: D412-630-032

Parent Item Name: Pilot/Co-Pilot Step, RH (Folding)

Start Date: 7/15/2011

Required Date: 7/29/2011

Start Qty: 2.00

Required Qty: 2.00

AN3C5A

Purchased

No

130

Each

1,183.000

3

16



Bolt

LocationLoc QtyLoc Code

FP-A

7

115835

7

ST350

1176

116419

28

116549

42

117343

500

117764

300

117872

306

AN44-C12

Purchased

No

130

Each

19.0000

1



eyebolt

LocationLoc QtyLoc Code

ST362

19

117616

19

AN4C15

Purchased

No

130

Each

17.0000

1



BOLT

LocationLoc QtyLoc Code

ST358

17

117764

7

118091

10

AN5C11

Purchased

No

130

Each

29.0000

1



BOLT

LocationLoc QtyLoc Code

ST337

29

114801

29

Friday, July 15, 2011 8:36:25 AM

Shop Packet Print

Page 2

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____
Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Friday, July 15, 2011 8:36:25 AM

Work Order ID: 71988

Parent Item: D412-630-032

Parent Item Name: Pilot/Co-Pilot Step, RH (Folding)

Start Date: 7/15/2011

Required Date: 7/29/2011

Start Qty: 2.00

Required Qty: 2.00

AN5C15 Purchased No 130 Each 23.0000



BOLT



1

2

Location

Loc Qty

Loc Code

ST338

23

114669

3

117616

20

AN960C10 NAS1149C0363 Purchased No 130 Each 0.0000



WASHER

AN960C516



WASHER



7

14

Location

Loc Qty

Loc Code

ST347

27

102842

27

D3454-1 Manufactured No 130 Each 16.0000



Bushing



1

2

Location

Loc Qty

Loc Code

ST054

16

58555

16

D3454-3 Manufactured No 130 Each 22.0000



Bushing



2

4

Location

Loc Qty

Loc Code

ST058

22

56420

2

68467

20

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Friday, July 15, 2011 8:36:26 AM

Work Order ID: 71988

Parent Item: D412-630-032

Parent Item Name: Pilot/Co-Pilot Step, RH (Folding)

Start Date: 7/15/2011

Required Date: 7/29/2011

Start Qty: 2.00

Required Qty: 2.00

D3454-5 Manufactured No 130 Each 24.0000

2 4



Bushing

Location

Loc Qty

Loc Code

ST054

24

68468

4

70527

20

D3455-1 Manufactured No 130 Each 15.0000

4 8



Spacer

Location

Loc Qty

Loc Code

ST054

15

68469

1

70529

14

D3455-3 Manufactured No 130 Each 13.0000

2 4



Spacer

Location

Loc Qty

Loc Code

ST054

13

68470

13

D3462-042 Manufactured No 130 Each 1.0000

1 2



Bracket Assembly

Location

Loc Qty

Loc Code

ST198A

1

70530

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Picklist Print

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Work Order ID: 71988

Parent Item: D412-630-032

Parent Item Name: Pilot/Co-Pilot Step, RH (Folding)

Start Date: 7/15/2011

Required Date: 7/29/2011

Start Qty: 2.00

Required Qty: 2.00

MS21043-3

Purchased

No

130

Each

872.0000

3



Nut

Location

Loc Qty

Loc Code

FG	72	
103691	72	
ST301	800	
112314	65	
118077	735	

MS24665-227

Purchased

No

130

Each

115.0000

2



COTTER PIN

Location

Loc Qty

Loc Code

GA	97	
111041	97	
ST309	18	
113845	18	

NAS1515H5

Purchased

No

130

Each

163.0000

1



Washer

Location

Loc Qty

Loc Code

FG	40	
103286	20	
103691	20	
ST277	123	
103286	100	
109430	23	

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Picklist Print

Friday, July 15, 2011 8:36:26 AM

Page 6

Work Order ID: 71988

Parent Item: D412-630-032

Parent Item Name: Pilot/Co-Pilot Step, RH (Folding)

Start Date: 7/15/2011

Required Date: 7/29/2011

Start Qty: 2.00

Required Qty: 2.00

D3455-1



Spacer

Manufactured No

110 Each

15.0000

2

4



ES 11/09/07

Location

Loc Qty

Loc Code

ST054

15

68469

1

70529

14

B72133
(4x)

D3443-041



Strut Weldment Assembly

Manufactured No

110 Each

0.0000

1

2



B71138 (2x)

ES 11/09/07

D3463-042



Step Weldment Assembly

Manufactured No

110 Each

1.0000

1

2



~~B71030~~ (2x)

ES 11/09/07

Location

Loc Qty

Loc Code

ST494

1

68473

1

B70071 (1x) (1x)

D3443-9.



Pin

Manufactured No

110 Each

2.0000

2

4



ES 11/09/07

Location

Loc Qty

Loc Code

ST053

2

70526

2

B72029
(4x)

AN4C14



BOLT

Purchased No

110 Each

35.0000

1

2



ES 11/09/07

Location

Loc Qty

Loc Code

ST357

25

117688

25

ST358

10

114669

10

2

Friday, July 15, 2011 8:36:26 AM

Shop Packet Print

Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, July 15, 2011 8:36:26 AM

Page 7

Work Order ID: 71988

Parent Item: D412-630-032

Parent Item Name: Pilot/Co-Pilot Step, RH (Folding)

Start Date: 7/15/2011

Required Date: 7/29/2011

Start Qty: 2.00

Required Qty: 2.00

MS24665-229

Purchased

No

130

Each

315.0000

2

4



COTTER PIN

Location

Loc Qty

Loc Code

GA

200

118234

200

ST309

115

111041

115

MS24665-227

Purchased

No

110

Each

115.0000

1

2



COTTER PIN

Location

Loc Qty

Loc Code

GA

97

111041

97

ST309

18

113845

18

AN4CH3

Purchased

No

110

Each

24.0000

2

4



SS Bolt

Location

Loc Qty

Loc Code

ST357

24

117616

14

118131

10

D3465-1

Manufactured

No

110

Each

14.0000

1

2



Washer

Location

Loc Qty

Loc Code

ST054

14

46134

14

Friday, July 15, 2011 8:36:27 AM

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Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, July 15, 2011 8:36:27 AM

Work Order ID: 71988

Parent Item: D412-630-032

Parent Item Name: Pilot/Co-Pilot Step, RH (Folding)

Start Date: 7/15/2011

Required Date: 7/29/2011

Start Qty: 2.00

Required Qty: 2.00

62 AN310-4
NUT

Purchased No 130 Each 76.0000 1



SP 11/9/18

Location Loc Qty Loc Code

ST324 76
118078 26
118112 50

D3443-043
Strut Weldment Assembly

Manufactured No 110 Each 0.0000 1



B71030 (20)

2
2
SP 11/09/07

D3454-7
Bushing

Manufactured No 110 Each 24.0000 2



4
SP 11/09/07

Location Loc Qty Loc Code

ST058 24
70528 24

AN310-7
NUT

Purchased No 110 Each 37.0000 1



4
2
SP 11/09/07

Location Loc Qty Loc Code

ST324 37
114784 37

2

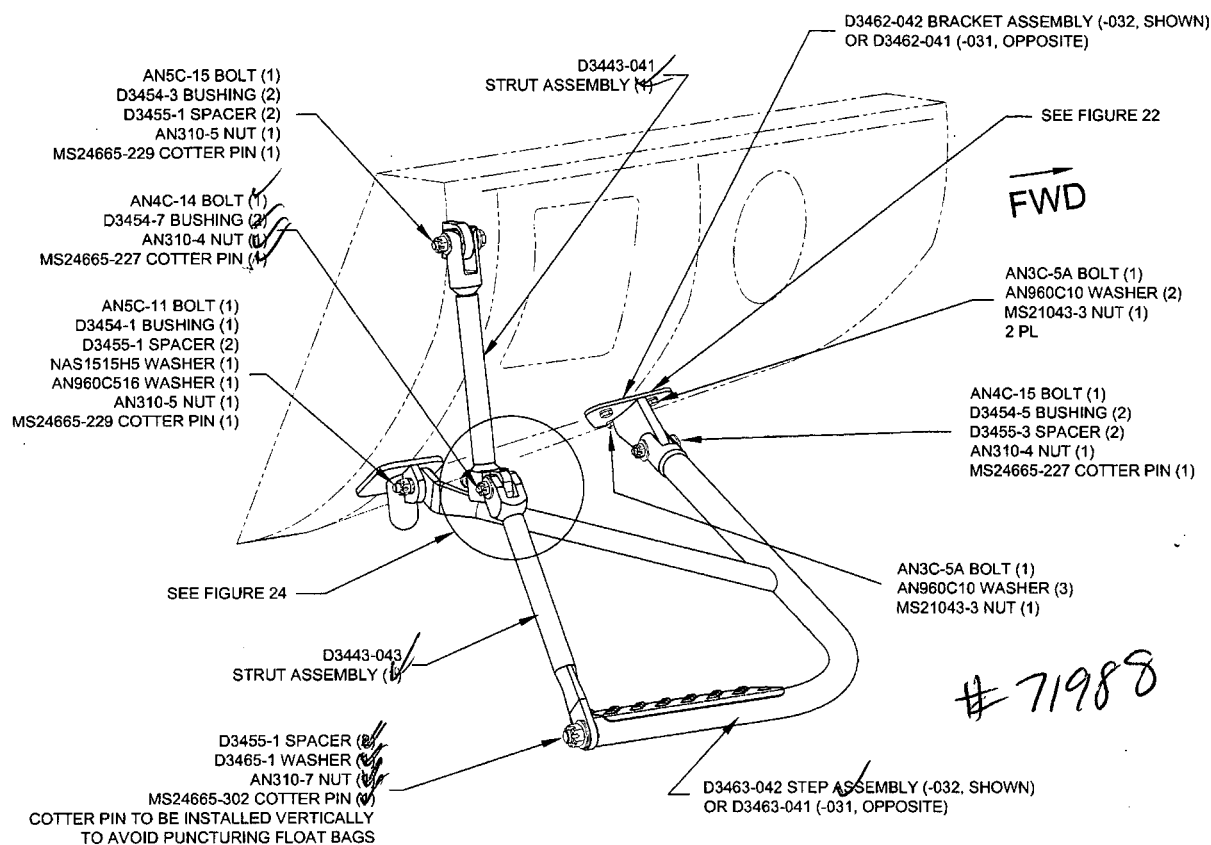
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

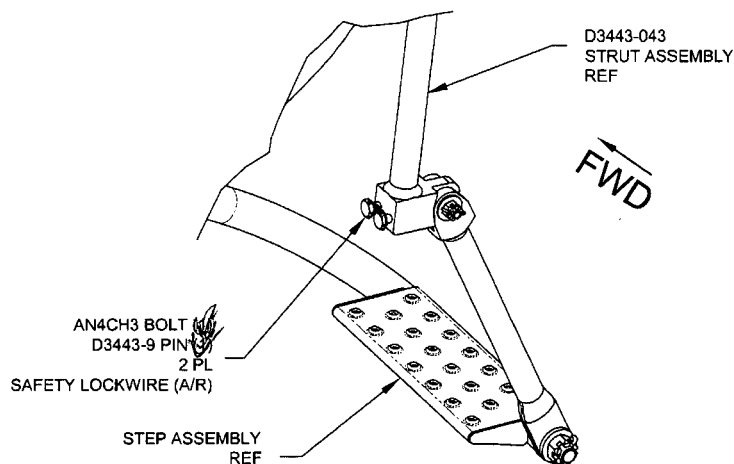
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



**FIGURE 23 – Isometric View D412-630-032 RH, Pilot/Co-Pilot Folding-Step Installation (Shown)
D412-630-031 LH (Opposite)**



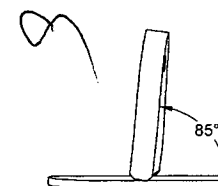
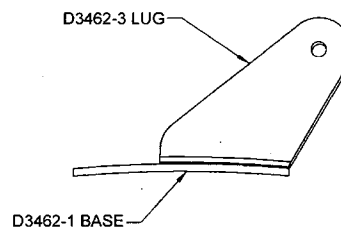
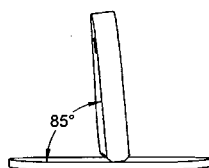
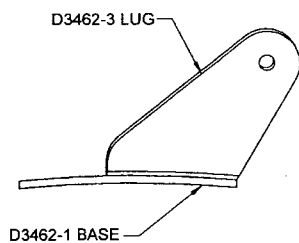
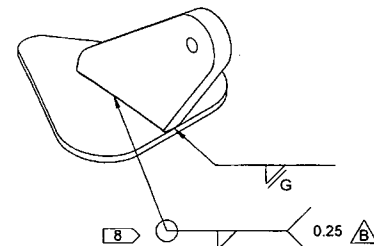
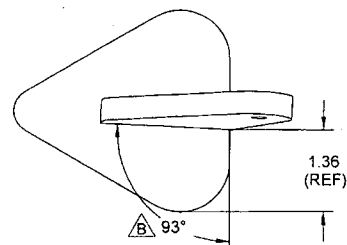
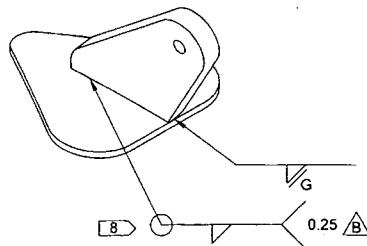
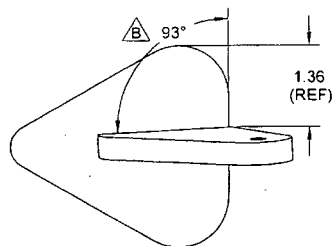
**FIGURE 24 – Detail Safety Wiring, D412-630-032 RH, Pilot/Co-Pilot Folding-Step Installation (Shown)
D412-630-031 LH (Opposite)**

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Revision: **M**
Date: 08.12.12

Qty -031	Qty -032	Part Number	Description
X	✓	D412-630-031	PILOT/CO-PILOT STEP, LH (FOLDING)
	X	D412-630-032	PILOT/CO-PILOT STEP, RH (FOLDING)
1	1	D3443-041	STRUT ASSEMBLY
1	1	D3443-043	STRUT ASSEMBLY
2	2	D3443-9	PIN
1	1	D3454-1	BUSHING
2	2	D3454-3	BUSHING
2	2	D3454-5	BUSHING
2	2	D3454-7	BUSHING
6	6	D3455-1	SPACER - 2
2	2	D3455-3	SPACER
1		D3462-041	BRACKET ASSEMBLY
	1	D3462-042	BRACKET ASSEMBLY
1	1	D3463-041	STEP ASSEMBLY
1	1	D3463-042	STEP ASSEMBLY
1	1	D3465-1	WASHER
2	2	AN310-4	NUT (→)
2	2	AN310-5	NUT
1	1	AN310-7	NUT
3	3	AN3C-5A	BOLT
1	1	AN44-C12	* EYEBOLT
1	1	AN4C14	BOLT
1	1	AN4C15	BOLT
2	2	AN4CH3	BOLT
1	1	AN5C11	BOLT
1	1	AN5C15	BOLT
7	7	AN960C10	WASHER
1	1	AN960C516	WASHER
3	3	MS21043-3	NUT
2	2	MS24665-227	COTTER PIN (→)
2	2	MS24665-229	COTTER PIN
1	1	MS24665-302	COTTER PIN
1	1	NAS1515H5	WASHER

* USE AN44-C12 EYEBOLT WHEN D412-630-031/-032 IS INSTALLED IN CONJUNCTION WITH D412-630-023/-024/-033/-034™ HELI-ACCESS-STEP



REFERENCE ONLY

D3462-041 BRACKET ASSEMBLY

D3462-042 BRACKET ASSEMBLY

QTY -041	QTY -042	P/N	DESCRIPTION
X		D3462-041	BRACKET ASSEMBLY
	X	D3462-042	BRACKET ASSEMBLY
1	1	D3462-1	BASE
1	1	D3462-3	LUG

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3462-041" OR "D3462-042" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.75 lbs (TYP)
- 8) WELDING: PER DART QSI 004

C	SHOW VIEWS OF D3462-041 & D3462-042, UPDATE DWG REASON: PRODUCTION FACILITY	DC	07.10.24
B	REVISE DIMENSIONS	RF	05.12.05
A	NEW ISSUE	RF	05.09.20
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	1/10/05 DC		
CHECKED	1/10/05	DRAWING NO.	REV. C
MFG. APPR.	1/10/05	D3462	SHEET 1 OF 2
APPROVED	1/10/05	TITLE	SCALE
DE APPR.	1/10/05	BRACKET ASSEMBLY	1.2
DATE	07.10.24	<small>COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	